IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An ultrasonic cleaner assembly for irradiated nuclear fuel assemblies, comprising:

a housing assembly for receiving a fuel assembly, wherein the housing assembly contains a fluid therein and at least one ultrasonic transducer;

a filter and pump assembly for withdrawing and filtering the fluid from the housing assembly at predetermined times; and

a flow diverter assembly operatively connected to the housing assembly for switching a flow path between a fuel pool and a suction line to the filter and pump assembly, wherein the flow diverter assembly establishes a flow path with a fuel pool when in a by-pass position, and wherein the flow diverter assembly establishes a flow path with the suction line to the filter and pump assembly when in an engaged position,

wherein the flow diverter assembly comprises a spring biased movable member that is movable between the by-pass position and the engaged position.

2. (Currently Amended) The ultrasonic cleaner assembly according to claim 1, wherein the flow diverter assembly comprises a fixed member, ~~wherein the movable member is spring biased,~~ and wherein the movable member is movable relative to the fixed member between the by-pass position and the engaged position.

3. (Original) The ultrasonic cleaner assembly according to claim 2, wherein the spring biased movable member moves from the by-pass position to the engaged position in response to a force applied by the fuel assembly.

4. (Cancelled).

5. (Currently Amended) An ultrasonic cleaner assembly comprising:

a first housing assembly for receiving a first fuel assembly, wherein the first housing assembly contains a fluid and at least one ultrasonic transducer;

a second housing assembly for receiving a second fuel assembly, wherein the second housing assembly contains the fluid and at least one ultrasonic transducer;

a filter and pump assembly for withdrawing and filtering the fluid from at least one of the first housing assembly and the second housing assembly at predetermined times;

a first flow diverter assembly operatively connected to the first housing assembly for switching a flow path between a fuel pool when in a by-pass position and a suction line to the filter and pump assembly when in an engaged position; and

a second flow diverter assembly operatively connected to the second housing assembly for switching a flow path between the fuel pool when in a by-pass position and the suction line to the filter and pump assembly when in an engaged position,

wherein each flow diverter assembly comprises a spring biased movable member that is movable between the by-pass position and the engaged position.

6. (Currently Amended) The ultrasonic cleaner assembly according to claim 5, wherein each flow diverter assembly comprises a fixed member, ~~wherein each movable member is spring biased,~~ and wherein each movable member is movable relative to the associated fixed member between the by-pass position and the engaged position.

7. (Original) The ultrasonic cleaner assembly according to claim 6, wherein each spring biased movable member moves from the by-pass position to the engaged position in response to a force applied by the corresponding fuel assembly.

8. (Cancelled).

9. (Previously Presented) The ultrasonic cleaner assembly according to claim 5, wherein both flow diverter assemblies open slightly to allow some bypass flow when both housing assemblies are empty.

10. (Previously Presented) The ultrasonic cleaner assembly according to claim 6, wherein both flow diverter assemblies open slightly to allow some bypass flow when both housing assemblies are empty.

11. (Previously Presented) The ultrasonic cleaner assembly according to claim 7, wherein both flow diverter assemblies open slightly to allow some bypass flow when both housing assemblies are empty.

12. (Previously Presented) The ultrasonic cleaner assembly according to claim 1, wherein the flow diverter assembly opens slightly to allow some bypass flow when the housing assembly is empty.

13. (Previously Presented) A flow diverter assembly comprising:

a fixed outer member, wherein the fixed outer member has at least one by-pass position window formed therein and at least one engaged position window formed therein;

a spring biased movable member having at least one window formed therein, wherein the movable member is movable within the fixed outer member between a by-pass position and an engaged position, wherein the movable member moves between the by-pass position and the engaged position in response to application of a load on the movable member, wherein the at least one window is aligned with the at least one by-pass position window when the movable member is in the by-pass position and the at least one window is aligned with the at least one engaged position when the movable member is in the engaged position.

14. (Original) The flow diverter assembly according to claim 13, wherein the spring biased movable member moves from the by-pass position to the engaged position in response to locating an object on the movable member.

15. (Cancelled).

16. (Previously Presented) The ultrasonic cleaner assembly according to claim 2, wherein the fixed member has at least one by-pass position window formed therein and at least one engaged position window formed therein,

wherein the spring biased movable member has at least one window formed therein, and

wherein the at least one window is aligned with the at least one by-pass position window when the movable member is in the by-pass position and the at least one window is

aligned with the at least one engaged position window when the movable member is in the engaged position.

17. (Previously Presented) The ultrasonic cleaner assembly according to claim 1, wherein the flow diverter assembly is positioned within the housing assembly.

18. (Previously Presented) The ultrasonic cleaner assembly according to claim 6, wherein the fixed member has at least one by-pass position window formed therein and at least one engaged position window formed therein,

wherein the spring biased movable member has at least one window formed therein, and

wherein the at least one window is aligned with the at least one by-pass position window when the movable member is in the by-pass position and the at least one window is aligned with the at least one engaged position window when the movable member is in the engaged position.

19. (Previously Presented) The ultrasonic cleaner assembly according to claim 18, wherein the first flow diverter assembly is positioned within the first housing assembly and the second flow diverter assembly is positioned within the second housing assembly.

20. (Previously Presented) The ultrasonic cleaner assembly according to claim 1, wherein the flow path with the fuel pool is closed when the flow diverter assembly is in the engaged position.

21. (Previously Presented) The ultrasonic cleaner assembly according to claim 1, wherein the flow path with the suction line to the filter and pump assembly is closed when the flow diverter assembly is in the by-pass position.

22. (Previously Presented) The ultrasonic cleaner assembly according to claim 5, wherein the first flow diverter assembly closes the flow path between the first housing assembly and the fuel pool when the first flow diverter assembly is in the engaged position.

23. (Previously Presented) The ultrasonic cleaner assembly according to claim 5, wherein the first flow diverter assembly closes the flow path between the first housing assembly and the suction line to the filter and pump assembly when the first flow diverter assembly is in the by-pass position.

24. (Canceled)

25. (Currently Amended) An ultrasonic cleaner assembly for irradiated nuclear fuel assemblies, comprising:

a first housing assembly constructed and arranged to house an irradiated nuclear fuel assembly and contain a fluid therein;

a first ultrasonic transducer disposed within the first housing assembly;

a filter and pump assembly fluidly connected to the first housing assembly by a first fluid flow path, the filter and pump assembly being constructed and arranged to withdraw and filter the fluid from the first housing assembly;

a flow diverter assembly comprising a first movable member that is movable between first and second positions, the first movable member permitting less fluid flow through the first fluid flow path when in the first position than when in the second position, the first movable member being spring biased toward its first position, the first movable member being constructed and arranged to move to the second position in response to a force applied by the irradiated nuclear fuel assembly.

26. (Previously Presented) The ultrasonic cleaner assembly of claim 25, further comprising a second fluid flow path between the first housing assembly and an environment surrounding the housing assembly, the first movable member closing the second fluid flow path when in the second position and permitting fluid flow through the second fluid flow path when in the first position.

27. (Previously Presented) The ultrasonic cleaner assembly of claim 25, wherein the first movable member closes the first fluid path when in the first position.

28. (Previously Presented) The ultrasonic cleaner assembly of claim 27, wherein:

when the first housing assembly does not house the irradiated nuclear fuel assembly, the first movable member is constructed and arranged to move to a third position in response to operation of the filter and pump assembly,

the first movable member permits some fluid flow through the first fluid path when in the third position, and

the first movable member permits less fluid flow through the first fluid flow path when in the third position than when in the second position.

29. (Previously Presented) The ultrasonic cleaner assembly of claim 25, further comprising:

a second housing assembly constructed and arranged to house an irradiated nuclear fuel assembly and contain the fluid therein;

a second ultrasonic transducer positioned relative to the second housing assembly to clean the irradiated nuclear fuel assembly housed by the second housing assembly, a second fluid flow path fluidly connecting the second housing assembly to the filter and pump assembly; and

a second movable member that is movable between third and fourth positions, the second movable member permitting less fluid flow through the second fluid flow path when in the third position than when in the fourth position.

30. (Previously Presented) The ultrasonic cleaner assembly of claim 29, wherein:

the ultrasonic cleaner assembly further comprises a common suction line operatively connected to the filter and pump assembly;

the first and second fluid flow paths extend through the common suction line;

the second movable member is biased toward its third position; and

the second movable member is constructed and arranged to move to the fourth position in response to a force applied by the irradiated nuclear fuel assembly being placed in the second housing assembly.